

## ABSTRACT

Optical Isolation Apparatus And Method

Optical isolation device (10) optically couples and electrically isolates various components on a local source circuit (36) from components on a remote isolated circuit (30). Light source (12) is coupled to opto-electrical detector (16) and opto-electrical sensor (20) is coupled to optical signal generator (18) by optical channel (14). The opto-electrical detector (16) is electrically coupled to remote isolated circuit (30) which is powered by the electricity generated by opto-electrical detector (16) in response to being impinged upon by light (22). Remote isolated circuit (30) is also electrically coupled to optical signal generator (18) which generates optical signals (32) in response to electrical signals received from remote isolated circuit (30). Opto-electrical sensor (20) produces electrical signals in response to being impinged upon by optical signals (32). Thus, remote isolated circuit (30) is completely electrically isolated from, but in communication with and powered by, local source circuit (36).